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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,068	03/23/2004	Hyun Sung Lim	HT3895 US NA	2647
23906	7590	09/22/2005	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			CONLEY, FREDRICK C	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/807,068

Applicant(s)

LIM ET AL.

Examiner

FREDRICK C. CONLEY

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 17-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/07/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

***Election/Restrictions***

Applicant's election without traverse of claims 1-16 drawn to a high loft flame resistant batting in the reply filed on 6/28/05 is acknowledged.

Claims 17-25 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention of a high loft flame resistant batting, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/28/05.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,489,256 to Kent et al. in view of U.S. Pat. No. 5,506,042 to Ichibori et al.

Claims 1 and 9-16, Kent discloses a high loft flame resistant batting providing fire blocking, comprising a base layer comprising heat resistant fibers; and binder fiber (col. 2 lines 42-50); a resilient layer comprising 0 to 50 parts by weight modacrylic fibers and 15 to 25 parts by weight binder material (col. 2 lines 25-30); and thickness of .5 inches or greater (col. 2 lines 35-38). Kent fails to disclose a cellulose and polyester fibers. Ichibori discloses a flame resistant bedding product having a blend of a cellulose fiber that is inherently capable of retaining at least 10 percent of its fiber weight when heated

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in air to 700 degrees Celsius at a rate of 20 degrees C per minute and polyester fibers (col. 4 lines 54-65). It would have been obvious for one having ordinary skill in the art at the time of the invention to employ a blend of cellulose and polyester fibers as taught by Ichibori in order to improve the visual attractiveness, feeling, hygoscopic property, washing resistance and durability of the batting of Kent. With regards to the base and resilient layers having 10 to 30 parts by weight heat resistant fibers in the base layer, 35 to 55 parts by weight of a cellulose fiber; 15 to 25 parts by weight binder material; 50 to 85 parts by weight polyester fiber; the base layer comprising 20 to 70 parts by weight; the resilient layer comprising 80 to 30 parts by weight of batting; 20 to 50 parts by weight of modacrylic fibers, 30 to 60 parts by weight polyester fiber it is considered an obvious modification to alter select ranges of various fibers and materials and it would have been obvious for one having ordinary skill in the art at the time of the invention to employ the ranges as stated above in order to provide a composite fabric blend having fire blocking characteristics, superior strength, and end-user comfort.

Claim 2, Kent discloses all of the Applicant's claimed limitations except for the heat resistant fiber comprising an organic fiber. Ichibori discloses a bedding product comprising a heat resistant fiber that is inherently capable of retaining 90 percent of its fiber weight when heated in air to 500 degrees Celsius at a rate of 20 degrees C per minute (col. 4 lines 55-65). It would have been obvious for one having ordinary skill in the art at the time of the invention to employ a natural fiber as taught by Ichibori in order to improve the visual attractiveness, feeling, hygoscopic property, washing resistance and durability of the batting of Kent.

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Claims 3-4, wherein the heat resistant fiber comprises a paramid such as polyterphthalamide (col. 3 lines 13-20).

Claim 6, Kent discloses all of the Applicant's claimed limitations except for the density of 0.33 to 2.0 pounds per cubic foot. It is considered an obvious modification alter the physical characteristics of the batting and it would have been obvious for one having ordinary skill in the art at the time of the invention to have a density as stated above in order to provide a resilient batting for the blanket of Kent.

Claim 7, having a basis weight of 8 to 12 ounces per square yard (col. 2 lines 31-38).

Claim 8, wherein modacrylic fibers are present in the resilient layer in the amount of 20 to 50 parts by weight.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,489,256 to Kent et al. in view of U.S. Pat. No. 5,506,042 to Ichibori et al., and further in view of U.S. Pat. No. 5,645,926 to Horrocks et al.

Claim 5, Kent, as modified, discloses all o the Applicant's claimed limitations except for the cellulose fiber containing a silicic acid. Horrocks discloses fire resistant materials having a viscose fiber containing silicic acid (col. 4 lines 45-53). It would have been obvious for one having ordinary skill in the art at the time of the invention to employ a viscose fiber containing silicic acid as taught by Horrocks in order to provide an inorganic reinforcement to the char-bonded structure during charring.

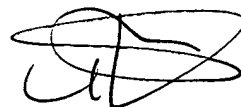
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FREDRICK C. CONLEY whose telephone number is 571-272-7040. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HEATHER SHACKELFORD can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FC



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